

III. REMARKS

1. Claims 70-82 and 84-86 remain in the application. Claims 76 and 83 have been cancelled without prejudice. Claims 70-82 and 84-86 have been amended.

The amendments to correct a lack of antecedent basis and the informality are not limiting, are not made for reasons related to patentability, and do not raise issues of estoppel.

2. Claims 70-86 have been amended to overcome the 35 USC 112, second paragraph rejections.

Claims 70, 77, 84, 85 and 86 are rejected as indefinite under 35 USC 112, second paragraph. Claims 70, 77, 84, 85 and 86 have been amended to overcome the rejection. In particular, the amendment replaces "some but not all of the noise" with "a predetermined fraction of the noise component." Support for this could be found at the related factors of ξ , α , λ used within the specification which are used to determine a fractional value of noise components. Equation 13, specifically, represents "a frequency domain estimate of the speech component together with a predetermined fraction (ξ) of the noise component..." as claimed. (See also page 2, lines 15-19)

Further, Claims 70, 77, 84, 85 and 86 are rejected as indefinite because it was unclear how an "estimate" is obtained. The amendment replaces the "estimate" with a "frequency domain estimate". Support for this amendment can be found, for example, on page 2, lines 24-29, and also in Equation 3, which describes the use of a frequency domain Wiener filter used to determine an estimate of the noise-free speech component. (See page 2, lines 16-18.)

Claims 70, 77, 84, 85, and 86 are also amended to replace "the gain of the signal containing noise" with "a gain of the signal containing noise" to correct for lack of proper antecedent basis.

Claims 70, 77, 84, 85, and 86 are further rejected as indefinite under 35 USC 112, second paragrpah for containing "wherein no use is made of voice activity detection/ a voice activity detector to detect non-speech periods." The amendment deletes the language noted above to overcome the rejection.

Claim 71 is rejected as indefinite under 35 USC 112, second paragraph. Specifically, the Examiner finds it unclear what "some noise" and "desired amount of noise" refers to and how

they are obtained. Claim 71 is amended to overcome the rejection. Support for the amendment can be found, for example, on page 12, line 10-19 of the application.

Claims 71-74 is further amended to replace "the level of the noise" with "the predetermined fraction of the noise" to correct for the lack of antecedent basis.

Claim 72 is rejected as indefinite under 35 USC 112, second paragraph. Claim 72 has been amended to overcome the rejection. The amendment deletes "acceptable level of context information" and replaces it with "amount of noise in the noise suppressed audio signal which naturally represents environmental background noise." This amendment can be supported by , for instance, page 12, lines 13-17 of the application.

Claim 74 is further amended to replace "the mask limit of the speech" with "a perceptual masking limit of the speech" to correct for lack of antecedent basis. Antecedent basis can be found in the amended claim 73.

Claim 74 is also amended to overcome the 35 USC 112, second paragraph rejection referring to "some noise context information". Claim 74 is amended to replace "some noise context information" with "a predetermined amount of noise". Support for this amendment can be find, for example, on page 12, lines 27-31.

Claim 78 has been rejected as indefinite under 35 USC 112, second paragraph for containing "the speech together with some noise" and "a desired amount of noise". The rejected language in claim 78 has been amended as is consistent with the amendments in claim 71.

It appears that the Examiner has repeated the same rejection under 35 USC 112, second paragraph for claim 78. The Applicant's response will, for the purposes of simplicity, disregard the second instance of the claim 78 rejection.

Claims 78-81 are amended to replace "the level of the noise" with "the predetermined fraction of the noise component" to correct for lack of antecedent basis. Antecedent basis can be found in claim 70.

Claim 79 has been amended to overcome the 35 USC 112, second paragraph rejection as is consistent with the amendments made in claim 72.

Claim 81 is amended to replace "the mask limit of the speech" with "a perceptual masking limit of the speech" to correct for lack of antecedent basis as is consistent with the amendments made in claim 74. Antecedent basis can be found in the amended claim 73.

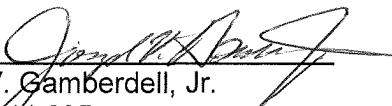
Claim 81 is further amended to replace "some noise context information" with "a predetermined amount of noise " to overcome the 35 USC 112, second paragraph rejection. This is consistent with the amendments made in claim 74.

At least for these reasons, Applicants respectfully submit that claims 70-86 are now definite and particularly point out and distinctly claim the subject matter of the present invention.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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